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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,150

09/21/2006

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EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

04/16/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,150	Applicant(s) OHTSUKI ET AL.	
	Examiner ANGELA J. MARTIN	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/20/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the Remarks filed on March 20, 2009. A new rejection is presented for the following reasons of record.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites a formula with "X₂" and then recites "wherein Xs are independently a halogen element", which is indefinite. The Examiner suggests the last two lines of the claim be deleted and replaced with "wherein X is at least two elements selected from the group consisting of fluorine, chlorine, bromine, iodine and astatine". (see also claims 3, 5-7). The claim should clearly state that the at least two kinds of halogen elements are represented by X in the formula. Furthermore, the "..." after the formula should be removed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Dierdorf et al., WO 96/10443.

Rejection of claims 1-7 drawn to an additive for an electrolyte.

Dierdorf et al., teach an additive for a non-aqueous electrolyte in a battery composed of a phosphazene compound represented by the following formula (I): (NPX₂)_n (I) (wherein X is independently a halogen element, and n is an integer of 2 or more) (p. 6, lines 3-27) and containing at least two kinds of halogen elements (p. 6, lines 11-12). An additive for a non-aqueous electrolyte in a battery according to claim 1, wherein the phosphazene compound contains fluorine and chlorine (p. 6, lines 11-12). An additive for a non-aqueous electrolyte in a battery according to claim 2, wherein Xs in the formula (I) are independently fluorine or chlorine (p. 6, lines 11-12). An additive for a non-aqueous electrolyte in a battery according to claim 1, wherein n in the formula (I) is 2 or more (p. 6, lines 4-6). An additive for a non-aqueous electrolyte in a battery according to claim 3 or 4, wherein n in the formula (I) is 3, and one to three of six Xs is chlorine and the others are fluorine (p. 6, lines 15-27; p. 8, Table II). An additive for a non-aqueous electrolyte in a battery according to claim 3 or 4, wherein n in the formula (I) is 4, and one to five of eight Xs is chlorine and the others are fluorine (p. 6, lines 15-27; p. 8, Table II). A non-aqueous electrolyte for a battery comprising an additive for a non-aqueous electrolyte in a battery as claimed in claim 1, an aprotic organic solvent and a support salt (0052-0056). A non-aqueous electrolyte for a battery according to claim 9, wherein a difference of a boiling point between the aprotic organic solvent and

the additive for the non-aqueous electrolyte in the battery is not more than 25.degree. C (0081). A non-aqueous electrolyte battery comprising a non-aqueous electrolyte for a battery as claimed in claim 9, a positive electrode and a negative electrode (0047).

Thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dierdorf et al., WO 96/10443, in view of Otsuki et al., EP 1347530 A1.

Dierdorf et al., teach an additive for a non-aqueous electrolyte as described above.

Otsuki et al., teach an additive for a non-aqueous electrolyte (abstract). A non-aqueous electrolyte for a battery comprising an additive for a non-aqueous electrolyte in a battery, an aprotic organic solvent and a support salt (0052-0056). A non-aqueous electrolyte for a battery, wherein a difference of a boiling point between the aprotic organic solvent and the additive for the non-aqueous electrolyte in the battery is not more than 25.degree. C (0081). A non-aqueous electrolyte battery comprising a non-aqueous electrolyte for a battery, a positive electrode and a negative electrode (0047).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Otsuki et al., into the teachings of Dierdorf

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et al., because both references teach an additive for an electrolyte having flame retardancy; Otsuki et al., describes a practical application for the electrolyte in a battery, whereas Dierdorf et al., describes the electrolyte without a particular application.

Response to Arguments

5. Applicant's arguments with respect to above claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is (571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM
/Angela J. Martin/
Examiner, Art Unit 1795